SIMRAD

Master the Elements

Installation Manual

Simrad SonicHub™
Marine Audio Server

English

www.simrad-yachting.com

A brand by Navico - Leader in Marine Electronics

SIMRAD

sonichub™

marine audio server

BY FUSION

Preface

FCC Statement

This equipment has been tested and complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a normal installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. This device must accept any interference received, including interference that may cause undesired operation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an output on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.
- A shielded cable must be used when connecting a peripheral to the serial ports.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Warranty

The warranty card is supplied as a separate document.

It is shipped with the product registration card.

In case of any queries, refer to the brand web site of your display or system.

www.simrad-yachting.com

Declaration of Conformity

GB	Hereby, Navico Holding AS declares that this Sonic Hub is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
FI	Navico Holding AS vakuuttaa täten että Sonic Hub tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
NL	Hierbij verklaart Navico Holding AS dat het toestel Sonic Hub in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
FR	Par la présente, Navico Holding AS déclare que ce Sonic Hub est conforme aux exigences essentielles et aux autres dispositions de la directive 1999/5/CE qui lui sont applicables.
SE	Härmed intygar Navico Holding AS att denna Sonic Hub står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
DK	Undertegnede Navico Holding AS erklærer herved, at følgende udstyr Sonic Hub overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/ EF.
DE	Hiermit erklärt Navico Holding AS, dass sich dieses Sonic Hub in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet. (BMWi)
GR	Με την παρουσα Navico Holding AS δηλωνει οτι Sonic Hub συμμορφωνεται προς τις ουσιωδεις απαιτησεις και τις λοιπες σχετικες διαταξεις της οδηγιας 1999/5/ΕΚ.
IT	Con la presente Navico Holding AS dichiara che questo Sonic Hub è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
ES	Por medio de la presente Navico Holding AS declara que el Sonic Hubcumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
PT	Navico Holding AS declara que este Sonic Hubestá conforme com os requisitos essenciais e outras provisões da Directiva 1999/5/CE.

The equipment named in this declaration, is intended for use in international waters as well as coastal sea areas administered by countries of the E.U. and E.E.A. A full Declaration can be obtained from www.simrad-yachting.com

Disclaimer

As Navico is continuously improving this product, we retain the right to make changes to the product at any time which may not be reflected in this version of the manual. Please contact your nearest distributor if you require any further assistance.

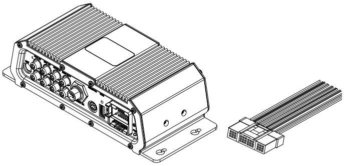
It is the owner's sole responsibility to install and use the instrument and transducers in a manner that will not cause accidents, personal injury or property damage. The user of this product is solely responsible for observing safe boating practices.

NAVICO HOLDING AS. AND ITS SUBSIDIARIES, BRANCHES AND AFFILIATES DISCLAIM ALL LIABILITY FOR ANY USE OF THIS PRODUCT IN A WAY THAT MAY CAUSE ACCIDENTS, DAMAGE OR THAT MAY VIOLATE THE LAW.

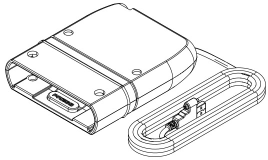
Governing Language: This statement, any instruction manuals, user guides and other information relating to the product (Documentation) may be translated to, or has been translated from, another language (Translation). In the event of any conflict between any Translation of the Documentation, the English language version of the Documentation will be the official version of the Documentation.

This manual represents the product as at the time of printing. Navico Holding AS. and its subsidiaries, branches and affiliates reserve the right to make changes to specifications without notice.

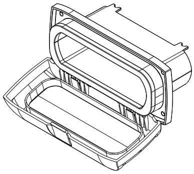
Check the Parts



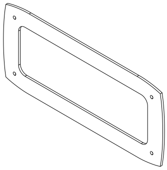
Sonic Hub



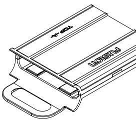
iPod Dock



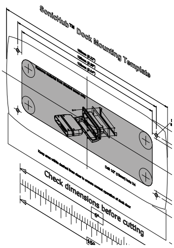
iPod Dock Front Cover



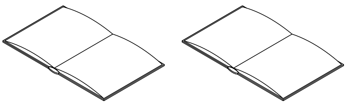
iPod Dock Gasket



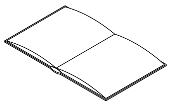
iPod Sleeves x 6



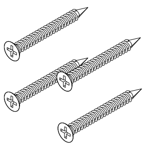
Templates for iPod Dock and Sonic Hub



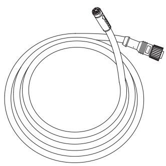
Operation and Installation Manuals



Fusion Brochure

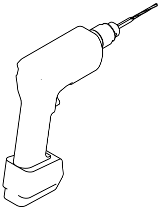
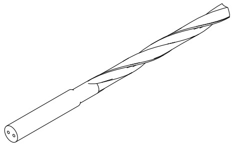
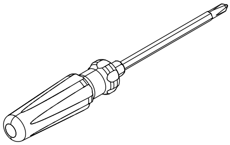
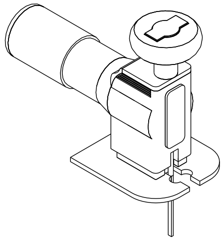
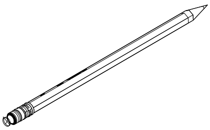


Mounting Screws
x 4 for Sonic hub
x 4 for iPod Dock



SimNet - Micro-C Cable
4 m (13 ft)

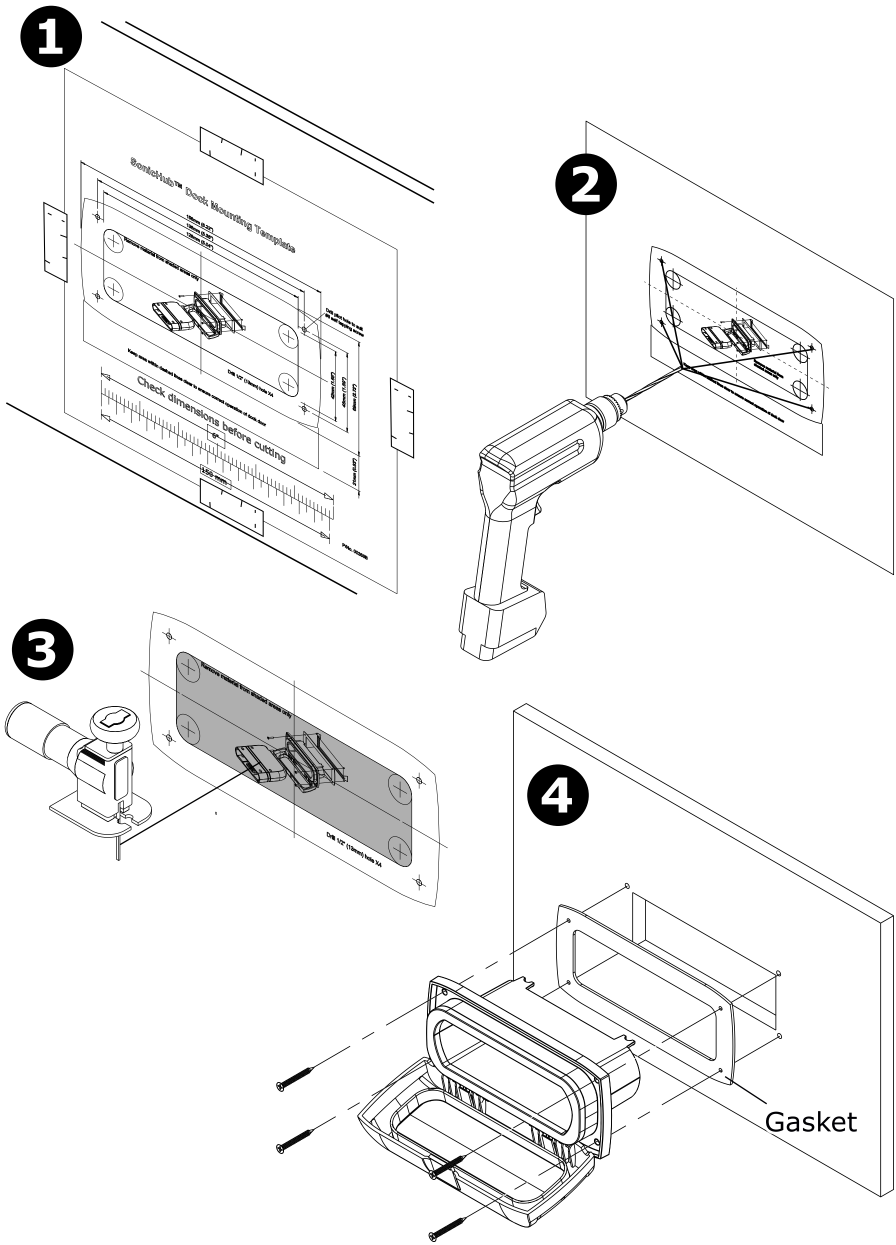
Required Tools

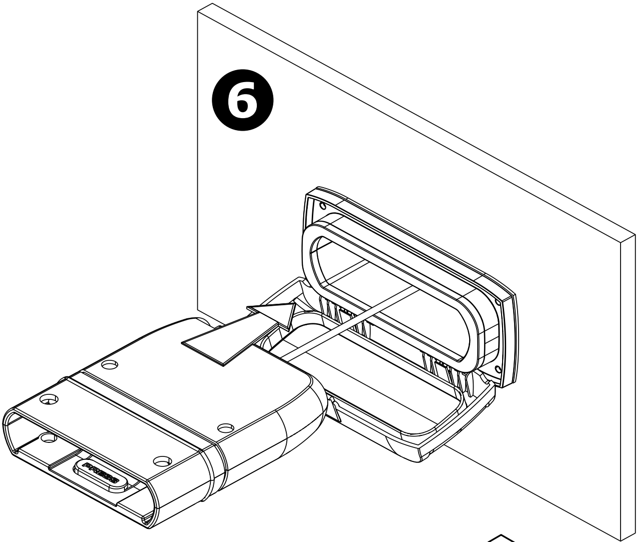
 Drill	 Drill Bit for pilot hole 2 mm (5/64")
 Phillips screw driver	 Jigsaw
 Pencil	

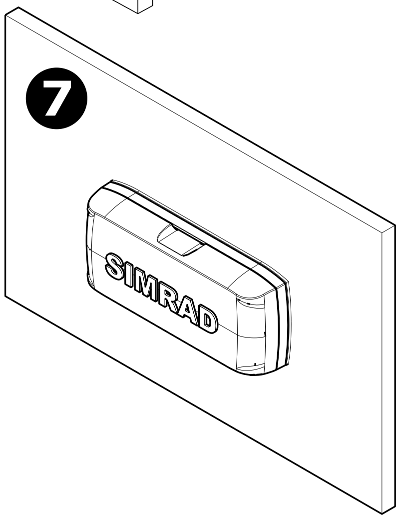
Other tools appropriate to your specific application may also be needed.

Installing the iPod Dock

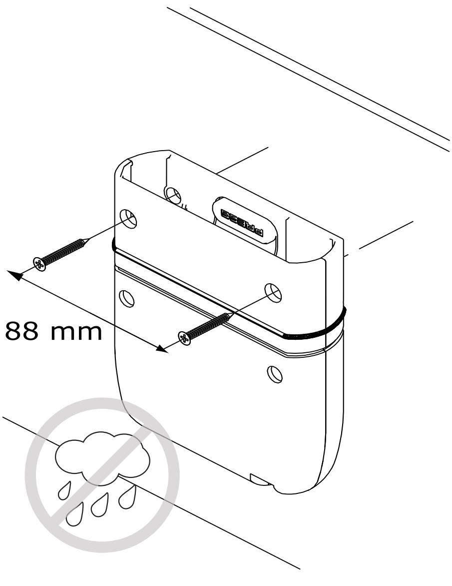
Panel Mounting







Wall Mount



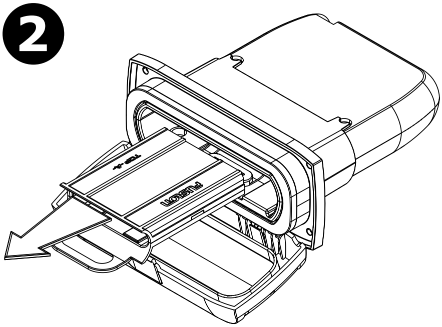
Using iPod Dock Sleeves

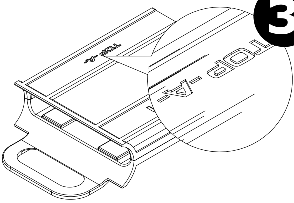
1

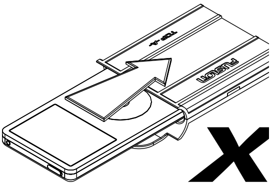


Remove sleeve

2





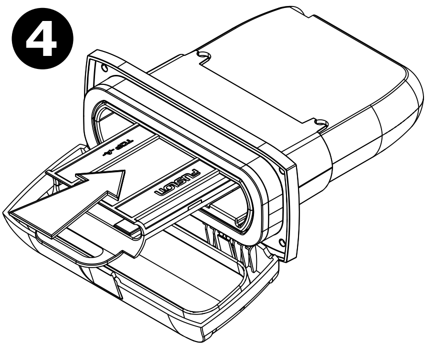


Except iPod nano (gen3)

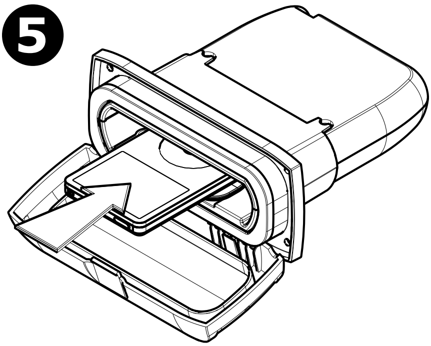
3 Select the correct iPod Dock Sleeve

iPod	Top Sleeve	Bottom Sleeve
iPod with video, 30 GB	A	A
iPod with video, 60 GB, 80GB	A	B
iPod classic, 80 GB	B	A
iPod classic, 160 GB (2007)	B	B
iPod classic, 120 GB	B	A
iPod classic, 160 GB (2009)	B	A
iPod touch,	D	D
iPod touch, 2nd gen (2009)	D	A
nano, 3rd gen	A	A+adapter
nano, 4th gen	E	E
nano, 5th gen	G	G
iPhone	F	F
iPhone 3G	F	F
iPhone 3GS	F	F

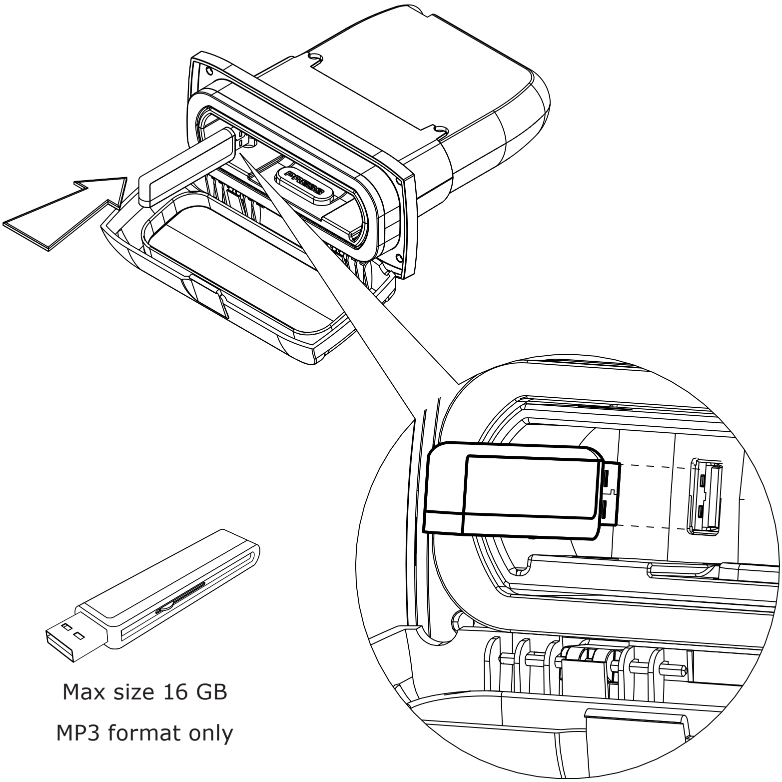
4



5



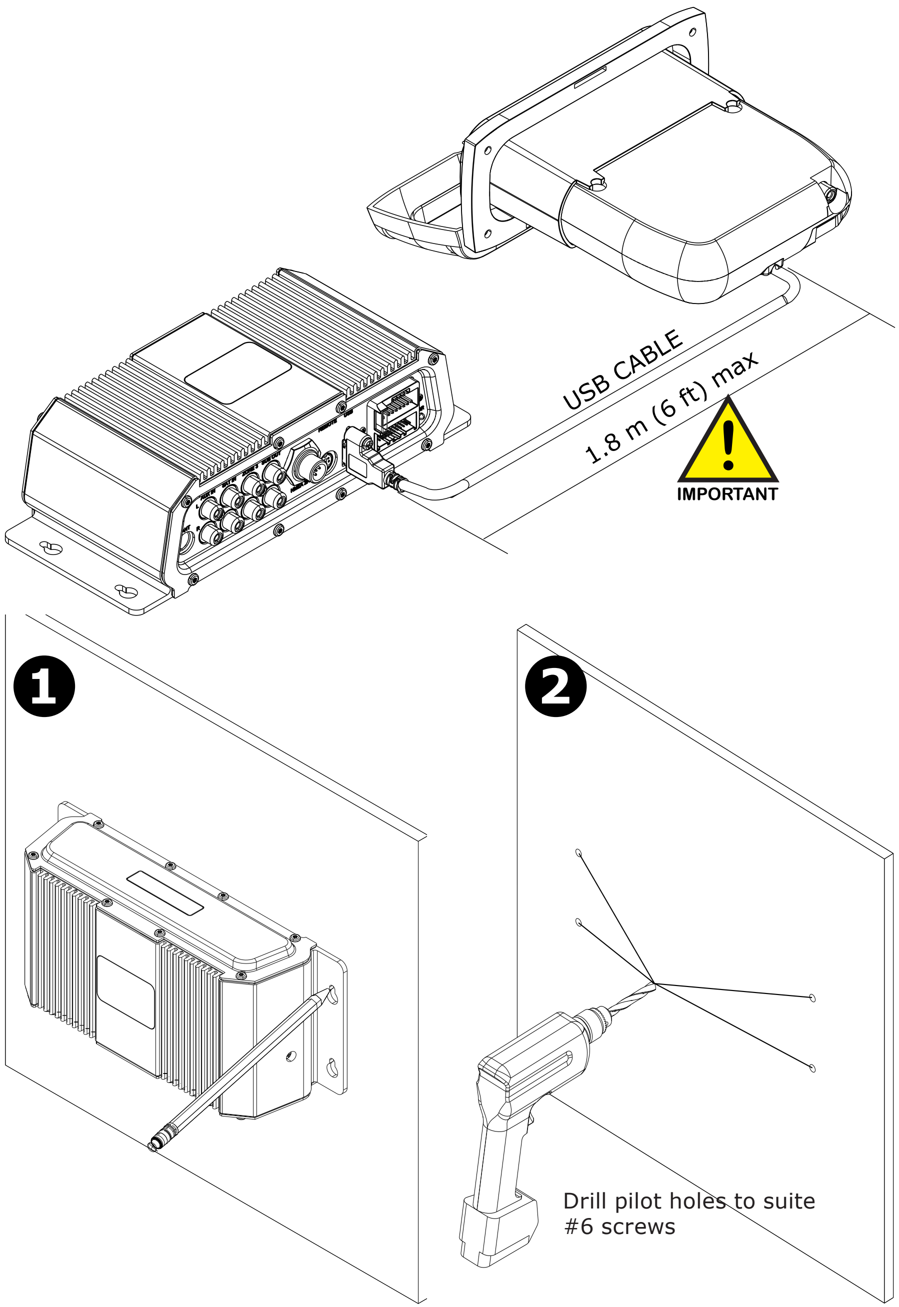
Using a USB Flash Drive

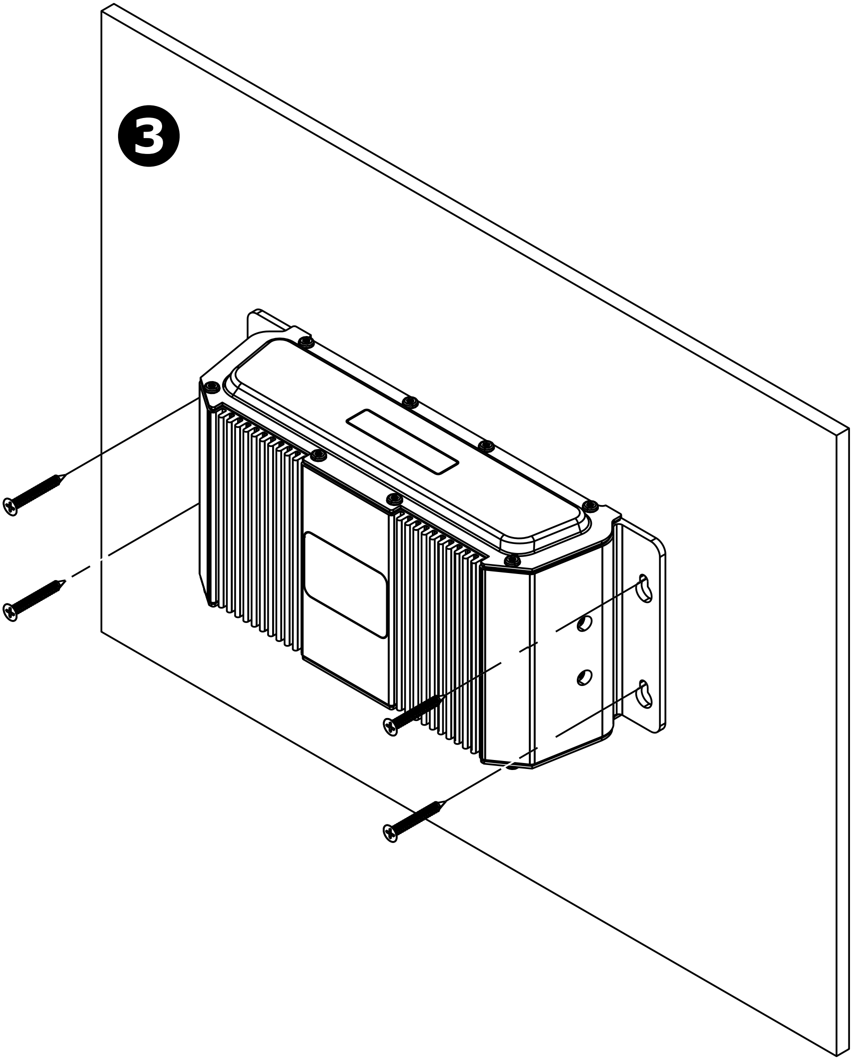


Max size 16 GB

MP3 format only

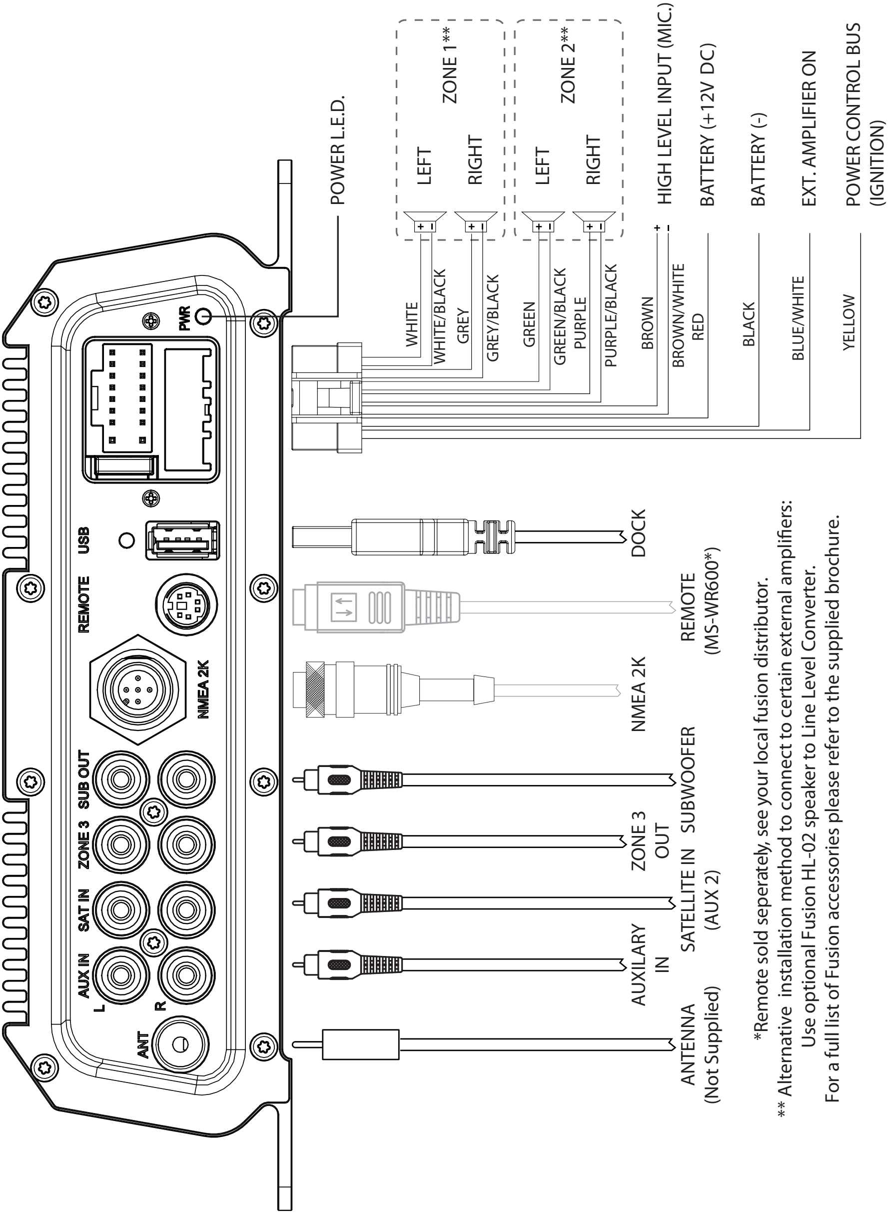
Installing the Sonic Hub




3

Wiring the Sonic Hub

Wiring Overview

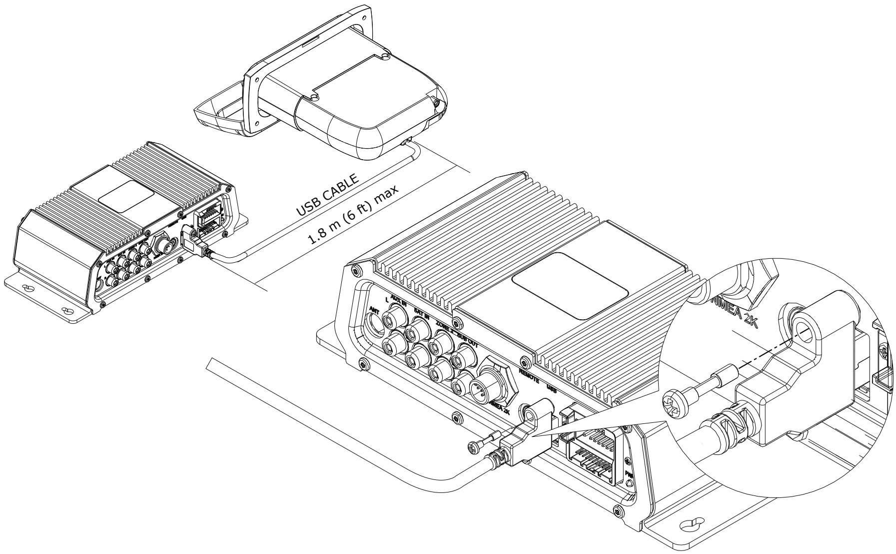


*Remote sold seperately, see your local fusion distributor.

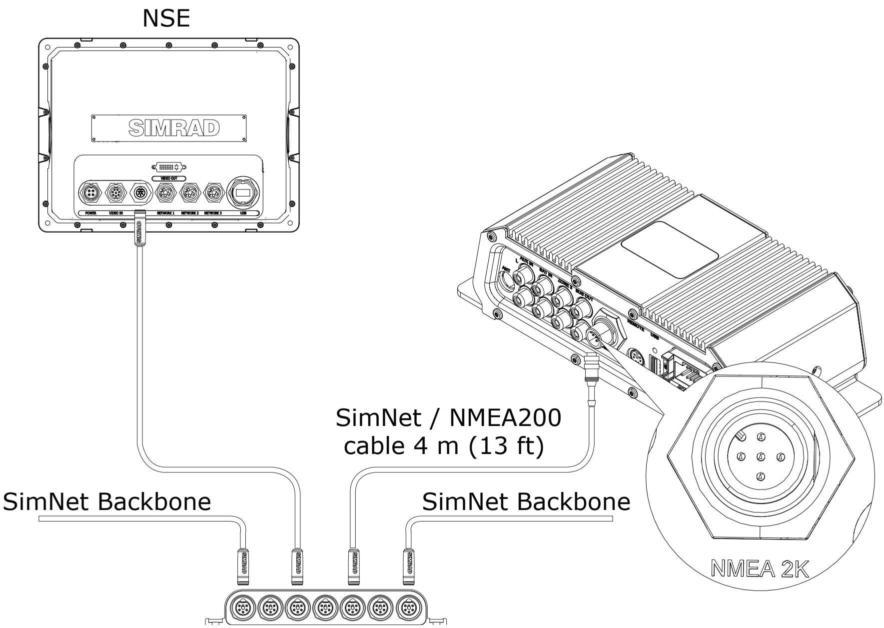
** Alternative installation method to connect to certain external amplifiers: Use optional Fusion HL-02 speaker to Line Level Converter.

For a full list of Fusion accessories please refer to the supplied brochure.

Connect the iPod Dock



Connect NMEA2000 / SimNet

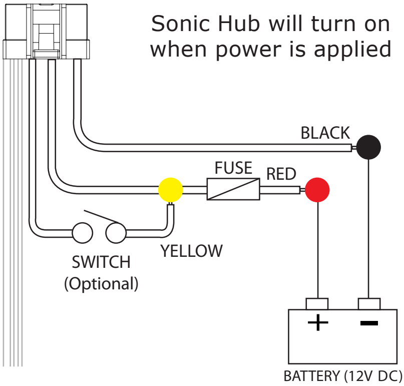


Connect Power

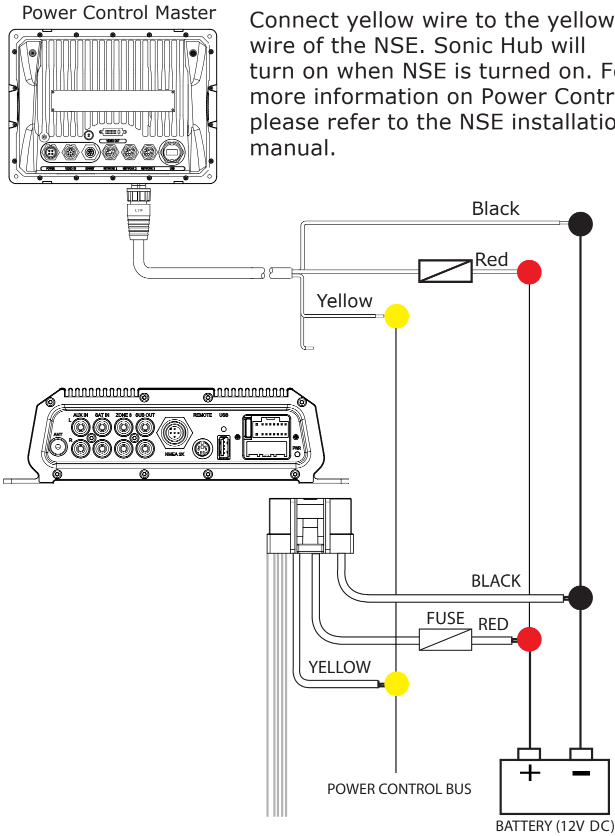
IMPORTANT

Always connect to power using a fuse or breaker 15 Amp

Sonic Hub will turn on when power is applied

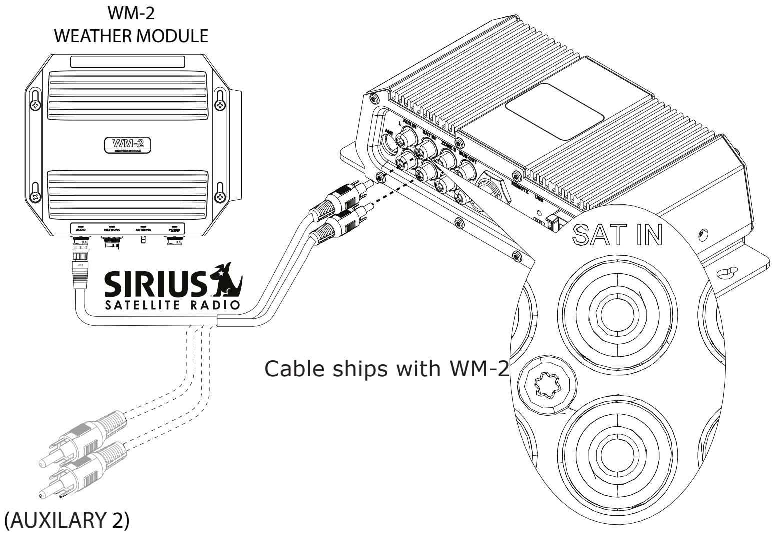


Connect yellow wire to the yellow wire of the NSE. Sonic Hub will turn on when NSE is turned on. For more information on Power Control please refer to the NSE installation manual.



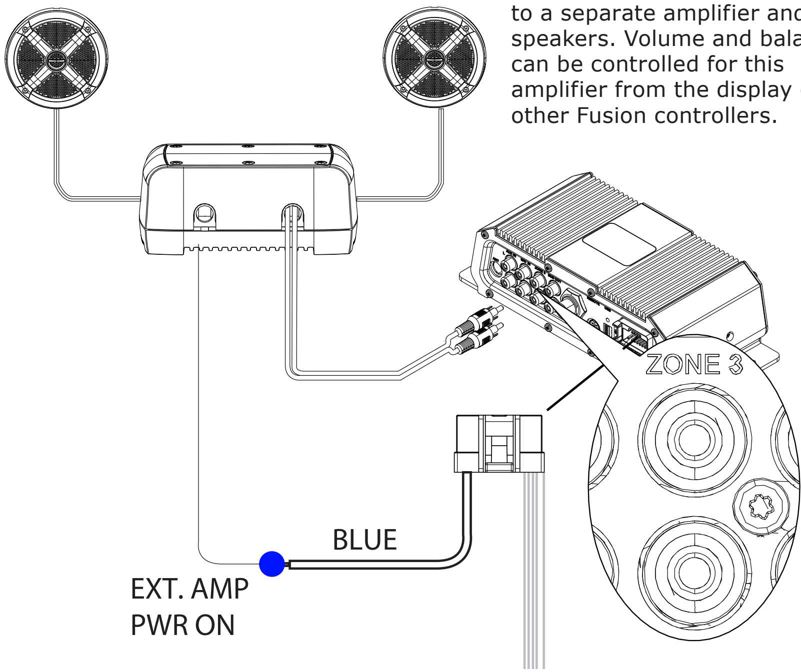
Connect SAT IN (AUX 2)

The **SAT IN** input can be from a WM-2 weather module to listen to Sirius satellite radio. Or it can be connected to some other line level audio source. .(AUX2).



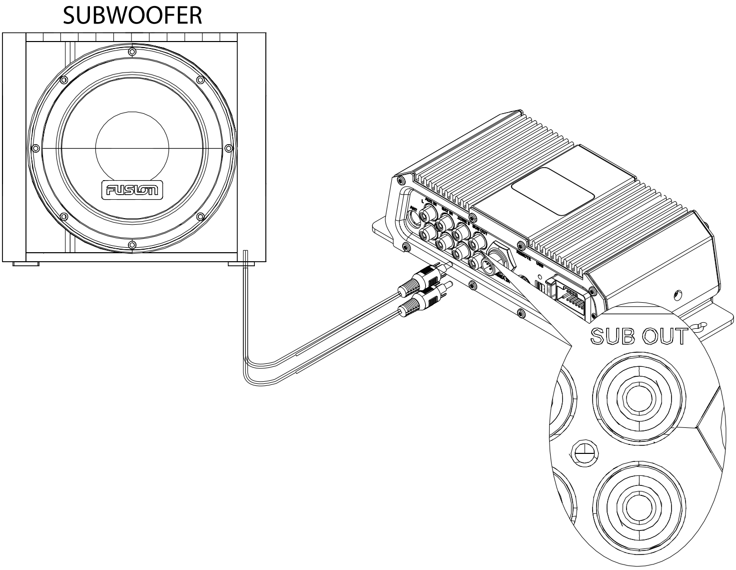
Connect ZONE3

Zone 3 Is a stereo line level output that can be connected to a separate amplifier and speakers. Volume and balance can be controlled for this amplifier from the display or other Fusion controllers.



Connect to a Subwoofer

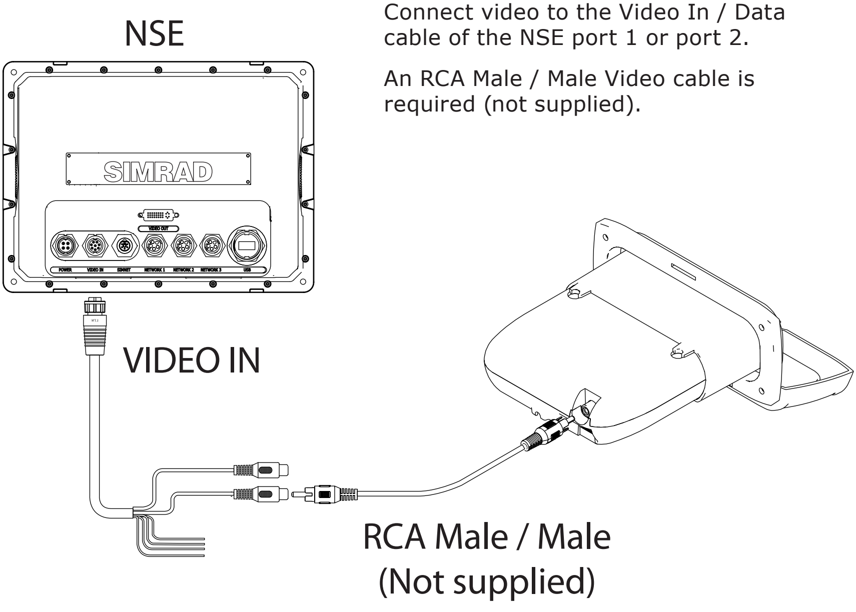
SUB OUT connection is a Mono Line Level out put from both RCA connectors



Connect Video Out

Connect video to the Video In / Data cable of the NSE port 1 or port 2.

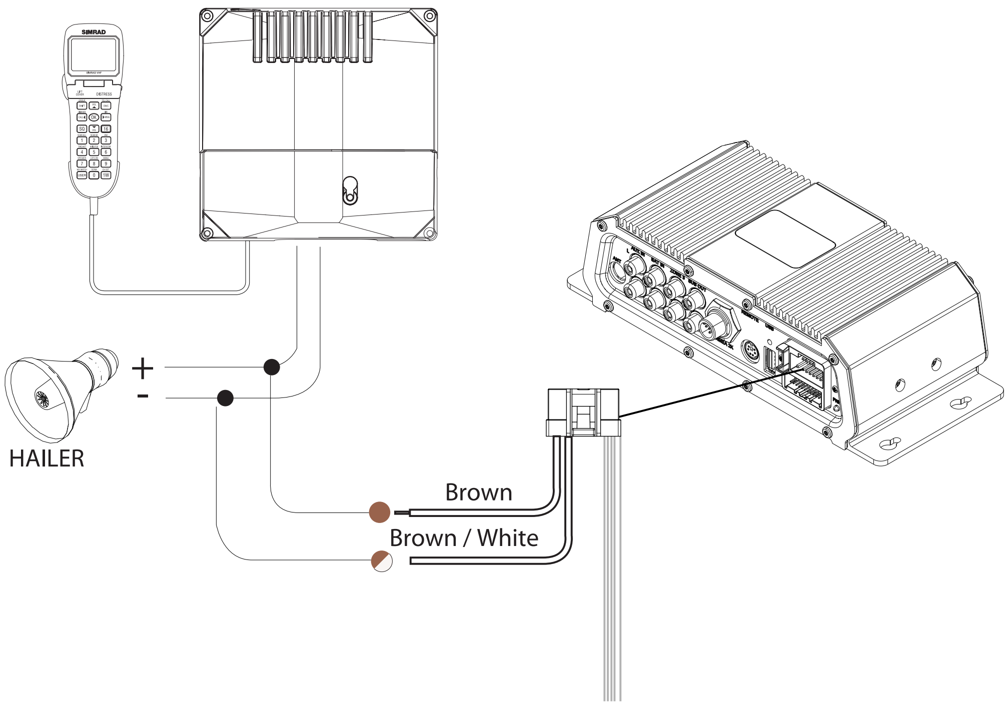
An RCA Male / Male Video cable is required (not supplied).



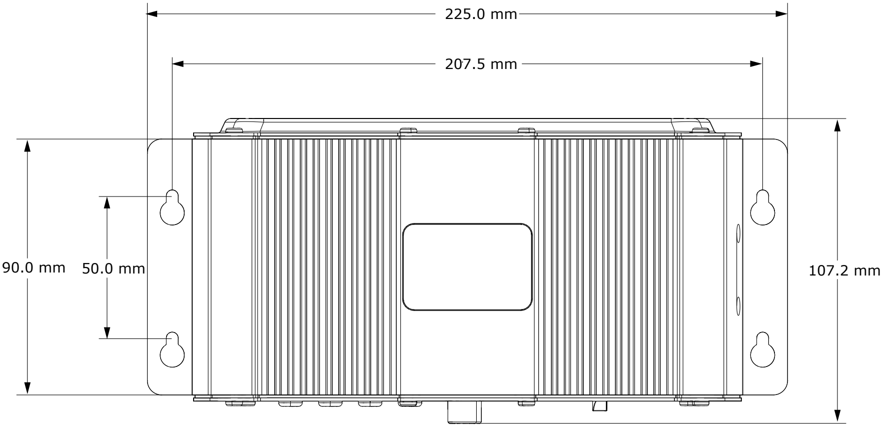
Connect MIC

MIC. Connection accepts a high level input (speaker level) as a source.

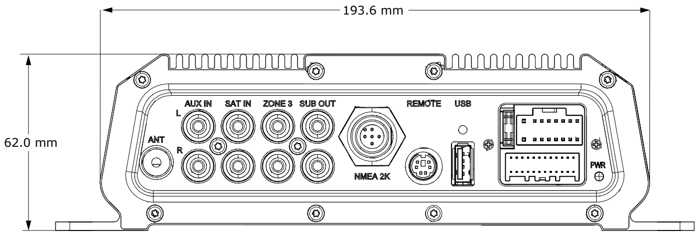
The example below shows how the Sonic Hub can be connected to the hailer output of a VHF Radio. The PA function of the Hailer will broadcast from the Sonic Hub.



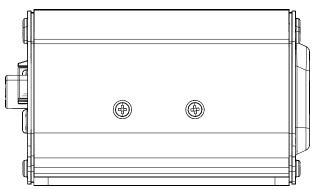
Dimensions

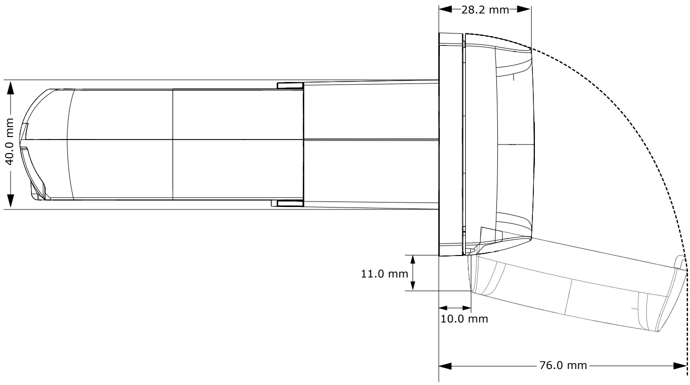


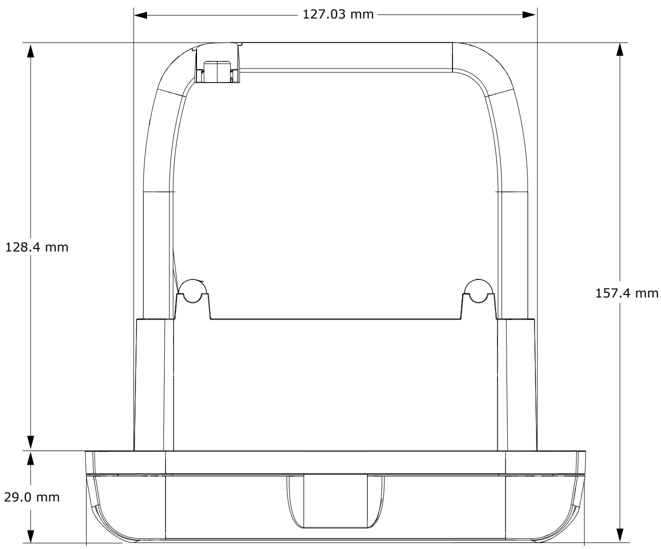
225.0 mm
207.5 mm
90.0 mm
50.0 mm
107.2 mm

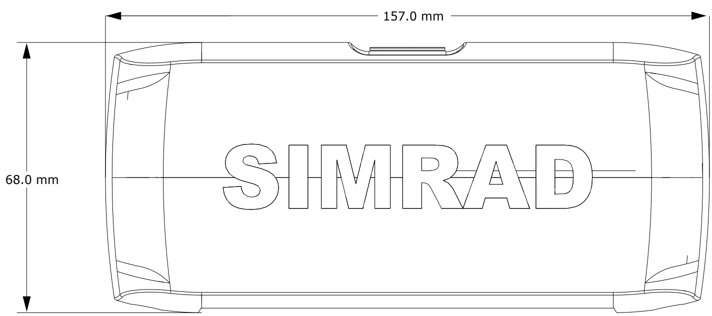


193.6 mm
62.0 mm
AUX IN
SAT IN
ZONE 3
SUB OUT
REMOTE
USB
L
R
ANT
NMEA 2K
PWR




28.2 mm
40.0 mm
11.0 mm
10.0 mm
76.0 mm


127.03 mm
128.4 mm
157.4 mm
29.0 mm


157.0 mm
68.0 mm
SIMRAD

Specifications

General	
Dimensions (L x W x H)	107 x 225 x 62mm (4.2 x 8.9 x 2.4”)
Weight	.88kg (1.96 lbs)
Waterproof Rating	IPX2
Temperature	Operating: -20 to 60°C (-4 to 140°F) Storage: -40 to 80°C (-40 to 176°F)
Compliance	FCC part B, Subpart J; CE per EN 60945; C-Tick
AM Tuner	
Tuning Range	531 to 1611 kHz EU with 9kHz/step; 530 to 1710 USA with 10kHz/step
Usable Sensitivity	28dBuV = 25uV
Auto Seek Station sensitivity	<20dBuV
Signal to Noise ratio	50dB @ 60dBuV signal
Ultimate S/N ratio	>60dB @ 80dBuV signal
Distortion	<0.4% @ 60dBuV signal, 80% modulation
Adjacent Channel selectivity	33dB @ Adjacent channel = 9kHz offset, 30% modulation. SINAD = 26dB
Alternate Channel selectivity	50dB @ Alternate channel = 18kHz offset, 30% modulation. SINAD = 26dB
FM Tuner	
Tuning Range	76.0 to 90.0MHz EU with 50kHz/step; 87.4 to 108.0MHz USA with 100kHz/step
Usable Sensitivity	28dBuV = 25uV
Auto Seek Station sensitivity	-6.5dBuV = 0.5uV for 30dB S/N ratio
Signal to Noise ratio	50dB @ 10dBuV signal
Ultimate S/N ratio	>70dB @ 60dBuV signal
Distortion	<0.1% @ 10dBuV signal
Adjacent Channel selectivity	30dB @ SINAD = 30dB, 40dBuV signal strength. 400Hz tone, 40kHz deviation. Adjacent channel = 100kHz offset, 1kHz tone, 40kHz deviation.
Alternate Channel selectivity	63dB @ SINAD = 30dB, 40dBuV signal strength. 400Hz tone, 40kHz deviation. Adjacent channel = 100kHz offset, 1kHz tone, 40kHz deviation.

Audio Amplifier	
Output Music Power per Channel	50W
Total Output Music Power	200W
Signal-to-Noise Ratio (unweighted, 20Hz to 20kHz)	96dB
Total Harmonic Distortion (1W output, 4 ohm load, 20Hz to 20kHz)	0.04% typical <0.1% max
Power Supply Requirements	10 to 16V DC
Current (Muted)	<250 mA
Current (Max)	<15 A
AUX Input/Outputs	
AUX 1 In; SAT IN (AUX 2 In); RCA Output; Subwoofer Out	Stereo AUX line input for CD/DVD/ MP3; Stereo AUX line input for SIRIUS; RCA Stereo Line Output Mono line output for Subwoofer; Mono Line Input for intercom (MIC), ALL levels are 1Vrms.
Antenna Connection	Standard Motorola Radio Male Plug
USB/MP3	Industry Standard

988-0183-02A

Simrad SonicHub Installation manual. EN. Doc.no. 988-0183-02A

SIMRAD

Master the Elements